

**VOICE COIL MOTOR POWER AMPLIFIER****ABSTRACT OF THE DISCLOSURE**

An operational amplifier connected to first and second transistors of an H-bridge for sinking and sourcing current, the operational amplifier having a differential input and an output and comprising a transconductance circuit, a gain circuit, a buffer circuit, and first and second feedback networks. The transconductance circuit is connected to receive the differential input and provide an output, wherein the output is connected to the second transistor of the H-bridge. The gain circuit is connected to receive the output from the transconductance circuit, wherein the gain circuit includes a transistor that is matched to the second transistor of the H-bridge. The buffer circuit is connected between the gain circuit and the first transistor of the H-bridge. The first feedback network comprises a level shift circuit connected to the output of the operational amplifier and a clamping circuit connected between the level shift circuit and an input of the buffer circuit. The second feedback network comprises a level shift circuit connected to the output of the operational amplifier and a clamping circuit connected between the level shift circuit and the first transistor of the H-bridge.

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